

Effect Size Estimates for Binary and Ordered Categorical Outcomes

This talk deals with d-comparable effect size estimates and their standard errors, for binary and ordered categorical outcomes. Hasselblad and Hedges (1995) suggested using a transformation of the log-odds-ratio that approximates d. No one has suggested the extension to ordinal data. My idea is simply to estimate the effect size and standard error directly using (i) the glm program in R, with the probit model for binary data with no zero cells; (ii) the bayesglm function in the arm package for data with zero cells; and (iii) the polr function in the MASS package for ordinal data. All functions have the default for the probit model to be based on a latent standard normal distribution, so the estimates will automatically be in the same scale as d.

Hasselblad, V., & Hedges, L.V. (1995). Meta-analysis of screening and diagnostic tests. *Psychological Bulletin*, 117, 167-178.